

COMMENTS ON THE CARYOPHYLLACEAE OF THE SOUTHEASTERN UNITED STATES

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ABSTRACT

Selected significant records from a study of the Caryophyllaceae for the Vascular Flora of the Southeastern United States are presented. *Gypsophila oldhamiana* Miq. is reported as new to the flora of North America.

The following comments derive from our preparation of the account of the Caryophyllaceae for *Vascular Flora of the Southeastern United States*.

Cerastium

CERASTIUM DIFFUSUM Pers. may now be reported from Arkansas. SHARP CO.: lawn and cemetery of Highland Assembly of God Church, US 62, Highland, Sec. 33, T19N, R5W, 12 Apr 1974, *Thomas et al.* 38521 (NLU).

Contrary to Fernald (1938, 1950), *Cerastium diffusum* Pers. is not known from Virginia. He reported collecting the species (as *C. tetrandrum* Curtis) from a sandy field in Sussex County, the first record of the species in North America. An inspection of his collection (*Fernald & Long* 7819, GH) showed it to be *C. brachypetalum* Desp. in Pers., a taxon that Fernald subsequently discovered and reported (Fernald 1939).

CERASTIUM GLUTINOSUM Fries was first reported in North America—specifically in the flora of the southeastern United States—by Shinnars (1966) on the basis of a collection from Wayne County, Mississippi (*Shinnars* 29342, SMU). However, we exclude *C. glutinosum* from our treatment for two reasons. Sell and Whitehead (1964) noted that *C. glutinosum* Fries is included in synonymy with their usage of *C. pumilum* Curtis subsp. *pallens* (E. Schultz) Schinz & Thell., stating that both *C. pumilum* and subsp. *pallens* have scarious-margined bracts. Jalas (1983) furthered this notion when he formed the combination *C. pumilum* subsp. *glutinosum*

(Fries) Jalas to replace the superfluous illegitimate name *C. pumilum* subsp. *pallens*. Accordingly, the bracts, especially the uppermost ones, of Shinners' collection should have scarious margins. Our inspection of *Shinners 29342* revealed that this is not the case. The specimen, as Shinners (1966) noted, contains two plants of *C. glomeratum* and three plants of slightly different appearance. Study of these three plants revealed the entirely herbaceous inflorescence bracts on each, a characteristic of *C. diffusum*, not *C. pumilum*.

The only published report of CERASTIUM PUMILUM within the region is for Baltimore County, Maryland (Brown & Brown 1984). In addition to confirming that report (*Balters 3510*, NCU), 11 specimens collected since 1958 confirm the existence of this species in disturbed areas in five additional states; Arkansas, North Carolina, South Carolina, Tennessee, and Virginia.

SPECIMENS EXAMINED. **Arkansas.** CLEBURNE CO.: pastured limestone glade, Drasco, 11 Jun 1967, *Tucker 4838* (NCU). **Maryland.** BALTIMORE CO.: railroad N of Cowenton Ave, E of Whitemarsh, 9 May 1964, *Baltars 3510* (NCU). **PRINCE GEORGES CO.:** lawn, Plant Introduction Station, Beltsville, 20 May 1958, *L. L. Jansen s.n.* (MICH, MO; duplicate at UC is *C. fontanum* Baumg.). **North Carolina.** HAYWOOD CO.: railroad yard, Canton, 25 Apr 1958, *Ables & Duke 38748* (NCU). SCOTLAND CO.: roadside, Rt. 74 near Laurinburg, 29 Apr 1971, *Morton NA4408* (JKM). SURRY CO.: 3 mi N of Mt. Airy, 7 May 1968, *Morton NA1142* (JKM). **South Carolina.** LAURENS CO.: rest stop on US 276 near I-26 junction, 20 Apr 1979, *Douglass 210* (CLEMS). **Tennessee.** FRANKLIN CO.: field, Henderson Farm, Sherwood, 4 May 1961, *Shaver 2636* (WILLI). **Virginia.** CHESTERFIELD-HENRICO COS.: outskirts of Richmond, 18 Apr 1969, *Morton NA2602* (JKM). MATHEWS CO.: roadside, 4 mi S of junction of Rts. 14 & 611, near Mathews, 14 Apr 1979, *von Montfrans 272* (WILLI). MIDDLESEX CO.: grassy roadside, junction of Va Rts. 33 & 630, W of Wilton, 20 May 1981, *North & Hall 147* (WILLI).

Our findings allow comments on the list of *Cerastium* species in Louisiana presented by MacRoberts (1984). His skepticism in admitting *C. arvense* L. and *C. brachypetalum* Desp. in Pers. to the Louisiana flora is justified since we saw no specimens of either taxon from Louisiana. Recognition of *C. brachypodum* (Engelm. ex A. Gray) Robinson is appropriate because all specimens identified as *C. nutans* Raf. from Louisiana are referable to *C. brachypodum*. Specimens of *C. semidecandrum* L. from four Louisiana parishes were located (3 at NLU, 1 at TENN); it is more likely an easily overlooked member of the flora of Louisiana, rather than being a ballast plant as MacRoberts (1984) suggested.

Dianthus

DIANTHUS ARMERIA L. can now be reported for Florida. BAY CO.:

woods and ditches along Steel Field Road, West Bay, 10 Jul 1971, *Hester 066* (AUA).

The only state in the region in which the existence of wild populations of *Dianthus armeria* is still in doubt is Louisiana. Thomas and Allen (1982) and MacRoberts (1984) listed *D. armeria*, but their listings may be based on the same cultivated collection (*Thomas et al. 30432*, NLU) from Ouachita Parish. A specimen at NATC (*Thomas 75* in 1948) may also be of cultivated origin (W. C. Holmes, pers. comm.).

Louisiana, Texas, and Virginia should be added to the range of *D. BARBATUS* L. based on the following collections, which we believe to represent non-cultivated plants. **Louisiana.** OUACHITA PARISH: 1.5 MI N OF WHITES-FERRY ROAD, WEST MONROE, 21 APR 1964, *Patrick 121* (NLU). **Texas.** HUNT CO.: in clay soil, left side of road, 1 mi W of Wolfe City, 5 Apr 1974, *Wisdom 27* (TAES). **Virginia.** GILES CO.: long-abandoned homesite, corner of Giles Co. 613 & 615, near Kire, 21 Jun 1981, *Rabeler 585* (MSC). RUSSELL CO.: edge of woods, Rt. 80, 18 Jun 1971, *Harvill & Stevens 23718* (FARM).

DIANTHUS DELTOIDES L., first reported within our region from Clay County, Arkansas (Richards 1985), is also known in North Carolina and Virginia. **North Carolina.** DURHAM CO.: abundant in weedy meadow beyond formal plantings of Sarah Duke Memorial Garden, 16 May 1959, *Wilbur 6222 & 6223* (DUKE, FSU). **Virginia.** HENRY CO.: naturalized along Edgewood Drive, near Bassett Forks, 27 May 1969, *Straley 69125* (VPI).

DIANTHUS PLUMARIUS L. can now be reported from Missouri, South Carolina, and Virginia. **Missouri.** CAMDEN CO.: infrequent along roadside in very rocky soil, 20 May 1975, *McReynolds 750713* (LSU). **South Carolina.** GREENVILLE CO.: escaped near Patterson property, Lakemont, 4 May 1977, *Evans 01* (CLEMS). **Virginia.** PULASKI CO.: on rocky slope at entrance way to New River Community College, 23 May 1979, *Frank 67* (VPI). A report of escape in Prince Georges County, Maryland (H.G. Bedell, pers. comm.) remains unconfirmed.

Gypsophila

GYPSOPHILA ELEGANS M. Bieb. is reported in our region on the basis of two collections from North Carolina. CARTERET CO.: Beaufort, 21 Apr 1946, *Whitford s.n.* (NCSC). FORSYTH CO.: fence corners, old gardens, Winston-Salem, 30 Sep 1921, *P. O. Schallert s.n.* (GH).

GYPSOPHILA OLDHAMIANA Miq. (Fig. 1) is now known from the southeastern United States. **Alabama.** LEE CO.: open field, Highway 29

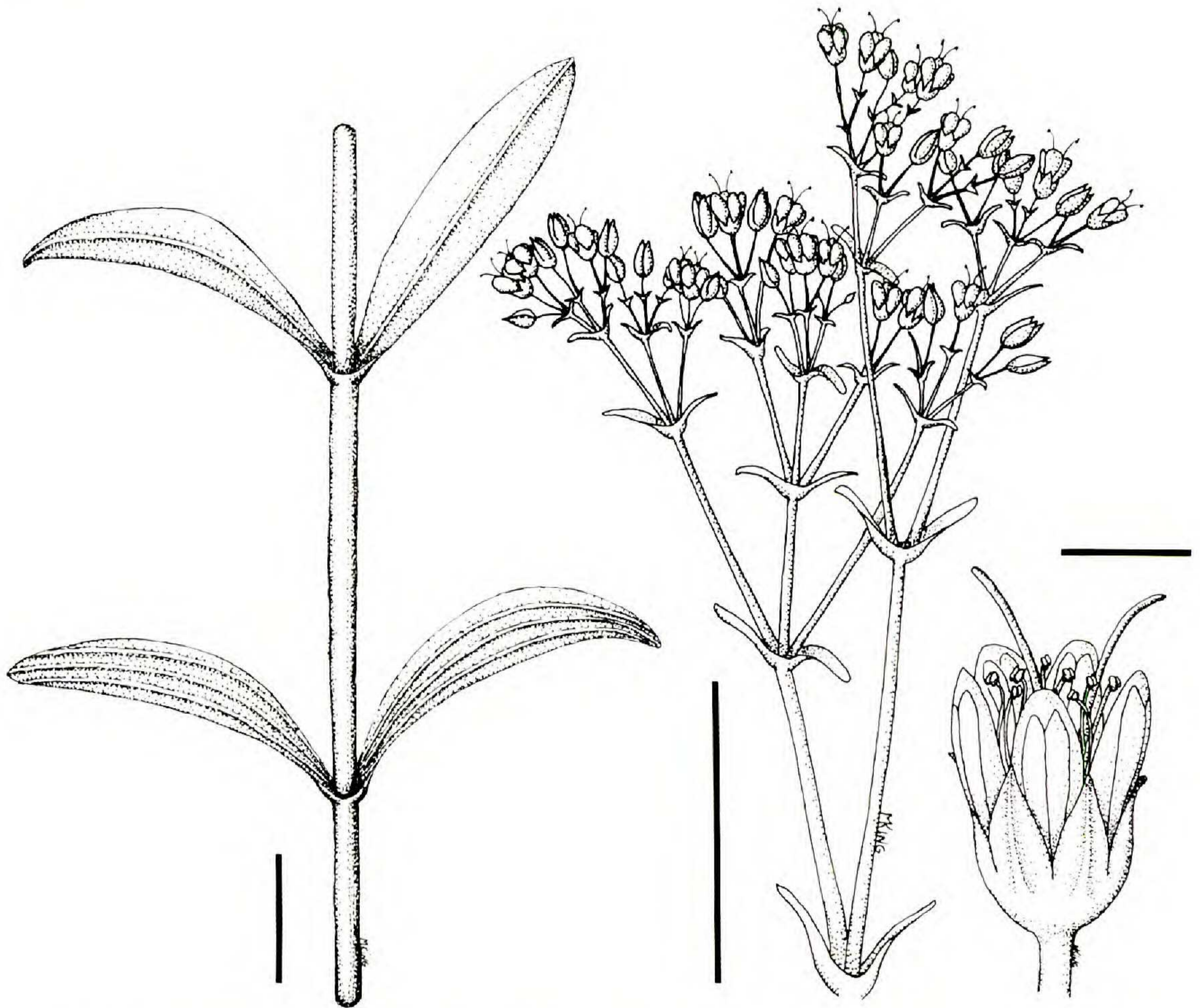


FIG. 1. *Gypsophila oldhamiana*. Stem and leaves, portion of the inflorescence, and flower. Horizontal line equals 1 cm, vertical line equals 1 mm.

between Auburn and Opelika, 17 Jul 1969, *Rebois 049* (AUA). We believe this to be the first report of this species outside of cultivation in North America.

GYPSOPHILA PANICULATA L. is added to the flora of the southeastern United States based on the following Florida collection. JACKSON CO.: Covering several acres of a watermelon field near Marianna, Jun 1982, *L. Cobb s.n.* (FLAS). The appearance of the species is not surprising given the commercial culture of *G. paniculata* 'Bristol Fairy' in Florida (see Raulston et al. 1973 for further information).

Myosoton

MYOSOTON AQUATICUM (L.) Moench may now be reported from Missouri. CLAY CO.: S side of Missouri River, E of Labenite Park, 23 Jun 1985, *Raveill 2319* (MO).

We share MacRoberts' (1984) reluctance in including *M. aquaticum* in the flora of Louisiana. Brown's (1930) report from Grand Isle is based on a misidentified specimen of *Stellaria prostrata* Baldw. (Brown 2030 [LSU], MICH). The listing of Louisiana in the range statement for *M. aquaticum* in all three editions of Small (1903, 1913, 1933) is also suspect in light of his determination of Brown 2498 (Lake Pontchartrain beach; MICH) as *Alsine aquatica*—it also is *Stellaria prostrata*!

Petrorhagia

We could not locate a specimen of *PETRORHAGIA PROLIFERA* (L.) P. Ball & Heyw. to substantiate Logan's reference (1963) to the species' existence in Lincoln Parish, Louisiana, and thus have not listed it for that state. MacRoberts (1984) noted that Logan was at LTU at the time of his study, but no specimen is in that collection (D. G. Rhodes, pers. comm.).

One species to watch for in Louisiana is *PETRORHAGIA VELUTINA* (Guss.) P. Ball & Heyw. This species is very abundant along many roadsides in eastern Texas and has been collected within 5 miles of the Texas-Louisiana border (MacRoberts 2339, LSUS, NO). See Rabeler (1985) for additional information on *P. velutina*.

Scleranthus

The following collection of *SCLERANTHUS ANNUUS* L. is the first recorded for Kentucky. GALLATIN CO.: in fallow field 1.5 mi E of Warsaw, 21 Apr 1984, Thieret 55020 (KNK). In the Warsaw area the species is locally common in fallow fields and nurseries. This widely distributed Eurasian weed is now reported from all of the southeastern states except Mississippi; however the species certainly occurs there.

Stellaria

We saw several important collections of *STELLARIA ALSINE* Grimm, confirming its existence in Georgia and extending the known range into Florida, Louisiana, and West Virginia.

Four specimens of *S. alsine* from Georgia were located, all collected in 1904. RICHMOND CO.: In spring run in ravine, Augusta, 28 Mar 1904, A. Cuthbert s.n. (FLAS); same data, 29 Apr 1904 (FLAS); in spring near Fruitlands, Augusta, 29 Apr 1904, Cuthbert 1063 (NY); Birckman's pumphouse, Augusta, Cuthbert second}. of 1063 (NY). The only other reference to *S. alsine* in Georgia is in Maguire (1952), no doubt based on the NY collections, both bearing the synonym *Alsine uliginosa* (Murray) Britton.

The following collection represents the first report of *S. alsine* for Louisiana. LASALLE PARISH: run-off seepage area from a sulfur spring beside Trout Creek, NW of LA 8 and White Sulfur Springs, Sec. 5, T7N, R2E, 23 Feb 1975, *Thomas (and Laird) 42599* (NLU, 2 sheets). Inspection of these collections revealed plants which matched other *S. alsine* specimens in every aspect except one: five white petals nearly equal in length (2 – 4 mm) to the sepals were present in some flowers. We know of no other reports of this phenomenon; *S. alsine* is normally described as either having narrow, inconspicuous petals or being apetalous. Procurement of additional material is necessary before any decision on formal recognition of this variation can be made.

Stellaria alsine can now be reported for West Virginia. HAMPSHIRE CO.: along Ca[ca]pon River, Yellow Spring, 20 Sep 1941, *W. M. Frye s. n.* (WVA). TUCKER CO.: Canaan Valley, sandy soil near Blackwater River at Davis, alt. 900 – 1200 m., 30 May 1946, *Allard 11894* (MICH, US, WVA); damp bank near bridge over Beaver Creek near Davis, 16 Jun 1947, *Allard 12254* (MT, PENN, US, WVA). UPSHUR CO.: gravel creek bed, Glady Fork, 4 mi W of Buckhannon, 21 Sep 1962, *Rossbach 4165* (NCU, WVA).

The Allard collections of *S. alsine* were labeled *S. borealis* Bigelow var. *isophylla* Fern., with *Allard 11894* being the basis of Allard's report (Allard 1947) of *S. borealis* as new to West Virginia. STELLARIA BOREALIS was reported again in West Virginia by Hutton (1977) [as *S. calycantha* (Ledeb.) Bong.] for his collection in Tucker County. Although the Hutton collection noted in that article could not be located at WVA, material collected by Dr. Hutton at the same site (a cold pool at base of cranberry bog, Dolly Sods) received by Rabeler (24 Aug 1984, *E. E. Hutton s.n.*, MICH, MSC, NCU, WVA) indeed proved to be *S. borealis*.

Although Brown and Brown (1984) list STELLARIA LONGIPES Goldie as occurring in Baltimore County, Maryland, we doubt this species should be admitted to the flora of the southeastern United States. *Stellaria longipes* is defined as either a highly plastic species (Chinnappa & Morton 1984) or as a complex of closely-related species (see Scoggan 1978 for a key to 11 segregate species) native to the northern reaches of the continent, extending as far south in the east as western New York (Fernald 1950). Wherry, Fogg, and Wahl (1978) did not include *S. longipes* in their *Atlas of the Flora of Pennsylvania*. Core included *S. longipes* in his preliminary treatment of *Stellaria* in the southeastern United States, citing *Balters 917* from Baltimore, Maryland. Reveal (1985) noted that Brown and Brown (1984) included records based on Balters collections. We were unsuccessful in locating *Balters 917*, but given Reveal's (1985) statements about suspicions

surrounding the origins of some Balter's collections, we feel justified in deleting *Balters* 917 from consideration in our treatment.

A few comments on the *Stellaria* species listed for Louisiana by MacRoberts (1984) are in order. First, his statement that *S. longifolia* Muhl. ex. Willd. is "treated by most authors as a synonym for *S. graminea*" L. is not correct. Additionally, both *Stellaria graminea* and *S. longifolia* should be deleted from the MacRoberts (1984) list since no specimens of these taxa from Louisiana were seen. Two collections labeled *Stellaria graminea* (Thomas 28437, FLAS, NCU, NLU, RSA, SMU, WILLI; Thomas & Thomas 51710, DOV, MARY, MSC) are in reality *Minuartia patula* (Michx.) Mattf.

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